

ABSTRACT

An inter-bank variation detection device of an internal combustion engine provided with a valve opening characteristic setting means (57) for changing the valve opening characteristic of an intake valve (9) for each of the cylinders (#1 to #4) or each of the bank (BL, BR); an indicator detecting means for detecting indicators of the state of combustion for each bank at the time of a first valve opening characteristic set by the valve opening characteristic setting means and the time of a second valve opening characteristic smaller than the first valve opening characteristic; a fuel injection amount variation detecting means (27) for detecting variation of the fuel injection amount for each bank by using the indicator (Xfn) detected by the indicator detecting means at the time of the first valve opening characteristic; and a valve opening characteristic variation detecting means (27) for detecting variation of the valve opening characteristic for each bank by using the indicator (Xsn) detected by the indicator detecting means at the time of the second valve opening characteristic and the variation of the fuel injection amount detected by the fuel injection amount variation detecting means is provided. It is also possible to change the valve opening characteristic of the intake valve by the valve opening characteristic setting means so that the variation of valve opening characteristic for each cylinder or each bank is eliminated.